

From the INTERNATIONAL BUREAU

PCTNOTIFICATION CONCERNING
TRANSMITTAL OF COPY OF INTERNATIONAL
PRELIMINARY REPORT ON PATENTABILITY
(CHAPTER I OF THE PATENT COOPERATION
TREATY)

(PCT Rule 44bis.1(c))

To:

JULIANO, Joseph
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P.O. Box 1022
Minneapolis, Minnesota 55440-1022
ETATS-UNIS D'AMERIQUEDate of mailing (*day/month/year*)
26 April 2007 (26.04.2007)Applicant's or agent's file reference
09991-168WO1**IMPORTANT NOTICE**International application No.
PCT/US2005/036920International filing date (*day/month/year*)
11 October 2005 (11.10.2005)Priority date (*day/month/year*)
15 October 2004 (15.10.2004)Applicant
FUJIFILM DIMATIX, INC. et al

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

The International Bureau of WIPO
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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 09991-168WO1	FOR FURTHER ACTION	See item 4 below
International application No. PCT/US2005/036920	International filing date (<i>day/month/year</i>) 11 October 2005 (11.10.2005)	Priority date (<i>day/month/year</i>) 15 October 2004 (15.10.2004)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant FUJIFILM DIMATIX, INC.		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input checked="" type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Date of issuance of this report 17 April 2007 (17.04.2007)
Facsimile No. +41 22 338 82 70	Authorized officer <div style="text-align: center; font-weight: bold; margin-top: 10px;">Simin Baharlou</div> e-mail: pt09.pct@wipo.int

PATENT COOPERATION TREATY

REC'D 16 FEB 2006

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From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

20/14

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2005/036920

International filing date (day/month/year)
11.10.2005

Priority date (day/month/year)
15.10.2004

International Patent Classification (IPC) or both national classification and IPC
H04L29/06

Applicant
DIMATIX, INC.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2005/036920

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. II Priority

1. ☒ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43*bis*.1 and 64.1) is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2005/036920

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2-4,6,10-12,14-16,18-20
	No: Claims	1,5,7,8,9,13,17
Inventive step (IS)	Yes: Claims	
	No: Claims	1-20
Industrial applicability (IA)	Yes: Claims	1-20
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V.

- 1 Reference is made to the following document:

D1 : SACHS M ET AL: "FIBRE CHANNEL AND RELATED STANDARDS" IEEE COMMUNICATIONS MAGAZINE, IEEE SERVICE CENTER, NEW YORK, NY, US, vol. 34, August 1996 (1996-08), pages 40-50, ISSN: 0163-6804

2 INDEPENDENT CLAIM 1

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parentheses applying to this document): A method of transmitting data between a computer system and an external printing device ("a data transfer interconnection system", p.40, col.1, last par.; "a node is a computer [...] and maybe an Input/output subsystem", p.40, col.2, 2nd. par), the method comprising:

generating a data packet in accordance with a communications protocol, the protocol defined to consist essentially of:

a first layer defining transmission line, transmitters, and receivers for transmission of the data packet, (p.40, col.2, l. 31-32)

a second layer defining encoding and decoding of the data packet,(p.41, col.1, l.12-16) and

a third layer defining a frame format of the data packet,(p.41, col.1, l.31-34)

wherein generating the data packet comprises encoding the data packet according to the second layer of the protocol in a frame format according to the third layer of the protocol; (p.43, col.2, l.17-21)

transmitting the data packet from the computer system to the external printing device, wherein the data packet is transmitted according to the first layer of the protocol; and (p.45, col 2, l.9-12)

decoding the data packet in accordance with the second layer of the protocol. (p.47, col.1, l.23-27)

3 INDEPENDENT CLAIM 13

- 3.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 13 is not new in the sense of Article 33(2) PCT.

Claim 13 corresponds in system terms, to claim 1, therefore the same reasoning applies.

4 DEPENDENT CLAIMS 2-12, 14-20

Dependent claims **2-12, 14-20** do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and inventive step (Article 33(2) and (3) PCT).

Claims 2, 14: the external printing device implementing the second and the third layer in an FPGA device is suggested by D1 on page 43, col.2, 2nd par. : "an implementer may choose to implement [...] FC-PH as separate or combined software, hardware and **microcode** elements in any manner that satisfies cost [and] performance".

Claims 3-5 and 15-17: are part of the standard definition for FC protocol with slight constructional changes (cl. 4, 16)

Claim 6: The first layer implemented in accordance [with] the first layer of the IEEE 802.3z Gigabit Ethernet protocol: it is known in the art that Fibre Channel and Gigabit Ethernet are competing technologies for cluster applications, both using the same (8B/10B) encoding scheme (the second layer). Therefore, it is a mere choice among several alternatives for the skilled person to use either implementation.

Claims 7-9: disclosed by D1

Claims 10,18: Data section being image data with portions of image data for each of the printing elements of a printing device: it is a common measure in the art to have portions of data associated to each of the printing elements (e.g. the "red" portion of an image being printed by the red ink cartridge, etc.)

Claims 12,20: the data represents printed scan lines, each corresponding to a print element association at the external printing device. (the same reasoning as for claims 10,18)

Claims 11,19: portions of data being time-shifted depending on the print element associations (known measure, see above).

5. The term "essentially" in claims 1 and 13 renders the scope of protection unclear, Art.6. The same applies for the formulation "in accordance the first layer", in claims 5 and 6.